MAY/FY06

DEVENS RESERVE TRAINING FACILITY

Massachusetts

Army Defense Environmental Restoration Program Installation Action Plan

Final 19 Jul 2006

Table of Contents

Table of Contents 1
Statement of Purpose 3
Acronyms and Abbreviations 4

Installation Information 6
Cleanup Program Summary 9

MMRP Program 12
MMRP Summary 13
MMRP Contamination Assessment 14
MMRP Active Sites 16
FTDV-001-R-01 Devens Rifle Range #1 17
FTDV-002-R-01 Devens Rifle Range #2 18
FTDV-003-R-01 Devens Rifle Range #3A 19
FTDV-004-R-01 Devens Rifle Range #3B 20
FTDV-005-R-01 Former Antitank Range 21
FTDV-006-R-01 Former EOD Range 22
FTDV-007-R-01 Former Hand Grenade Range 23
FTDV-008-R-01 Former Mock Village 24
FTDV-009-R-01 Former Training Area 22 25
FTDV-010-R-01 Range Complex #4 26

MMRP Schedule 27
MMRP Costs 28

Base Realignment and Closure Program 29
Transfer Summary 30
BRAC IRP Summary 32
BRAC Contamination Assessment 33
BRAC Active Sites 37
FTDV-005 Sanitary Landfill (AOC 5) 38
FTDV-025 Impact Area-EOD Range (AOC 25) 40
FTDV-026 Zulu Range (AOC 26) 41
FTDV-027 Hotel Range (AOC 27) 42
FTDV-032 DRMO Yard (AOC 32) 43
FTDV-040 Cold Springs Brook Dump (AOC 40) 46
FTDV-041 Unauthorized Dump Area (AOC 41) 48
FTDV-043 Historic Gas Station (AOC 43A) 49
FTDV-050 Bldg 3602 LUST Site (SA 49) 52
FTDV-057 Bldg 3713 Fuel Oil Spill (SA 57) 54
FTDV-069 Past Spill Sites (AREE 69)/Pesticides FH 56
FTDV-071 Round House (SA 71) 57
FTDV-077 Historic Gas Stations (AOC 43G & J) 58
FTDV-080 Pasted SS – Elementary School (AOC 69W) 61

Table of Contents

BRAC NFA Sites Summary *62*

BRAC Schedule..... *66*
BRAC Costs..... *67*

Community Involvement *68*

Statement of Purpose

The purpose of the Base Realignment and Closure (BRAC) Installation Action Plan (BIAP) is to outline the total multi-year Cleanup Program for an installation. The plan identifies environmental cleanup requirements at each site or area of concern, and proposes a comprehensive, installation-wide approach, with associated costs and schedules, to conduct investigations and necessary remedial actions.

In an effort to coordinate planning information between the restoration manager, US Army Environmental Center (USAEC), Devens Reserve Training Facility and BRAC Division, an IAP was completed. The IAP is used to track requirements, schedules and tentative budgets for all Army installation cleanup programs.

All site-specific funding and schedule information has been prepared according to projected overall Army funding levels and is, therefore, subject to change.

The following agencies contributed to the formulation and completion of this Installation Action Plan:

Company/Installation/Branch
Engineering and Environment, Inc. for USAEC
ICI, llc for USAEC
Devens BRAC Environmental Coordinator

Acronyms & Abbreviations

AEDB-R	Army Environmental Database - Restoration
AOC	Area of Concern
AREE	Areas Requiring Environmental Evaluation
AST	Above Ground Storage Tank
BCT	Base Closure Team
BEC	BRAC Environmental Coordinator
bgs	below ground surface
BRAC	Base Realignment and Closure
CA	Corrective Action
CAP	Corrective Action Plan
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	Contaminants of Concern
CRP	Community Relations Plan
CTC	Cost-to-Complete
CTT	Closed, Transferred, or Transferring
cy	cubic yards
DA	Department of Army
DCL	Devens Consolidation Landfill
DD	Decision Document
DERP	Defense Environmental Restoration Program
DMM	Discarded Military Munitions
DRMO	Defense Reutilization and Marketing Office
EOD	Explosive Ordnance Division
ERD	Enhanced Reductive Dechlorination System
USEPA	US Environmental Protection Agency
ER,A	Environmental Restoration, Army
FS	Feasibility Study
ft	feet
FUDS	Formerly Used Defense Sites
FY	Fiscal Year
GFPR	Guaranteed Fixed Price Remediation
GW	Groundwater
IA	Installation Assessment
IAP	Installation Action Plan
INRMP	Integrated Natural Resources Management Plan
IWS	In Well Stripping System
RA	Interim Remedial Action
IRP	Installation Restoration Program
LTM	Long-Term Management
LTMP	Long-Term Groundwater Monitoring Plan
MAAF	Moore Army Airfield
MACOM	Major Army command
MADEP	Massachusetts Department of Environmental Protection
MMRP	Military Munitions Response Program

Acronyms & Abbreviations

MNA	Monitored Natural Attenuation
MW	Monitoring Well
NFA	No Further Action
NPL	National Priorities List
OE	Ordnance and Explosives
PA/SI	Preliminary Assessment/Site Inspection
PA	Preliminary Assessment
PCE	Tetrachloroethene
POL	Petroleum, Oil & Lubricants
POM	Program Objective Memorandum
PP	Proposed Plan
PY	Prior Year
RA	Remedial Action
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operation)
RAB	Restoration Advisory Board
RAC	Risk Assessment Code
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
REM	Removal
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
RIP	Remedy in Place
ROD	Record of Decision
ROTC	Reserve Officers' Training Corps
RPM	Remedial Program Manager
RRSE	Relative Risk Site Evaluation
RFTA	Reserve Forces Training Area
SA	Study Area
S&R	Supervision and Remediation
SI	Site Inspection
SPIA	South Post Impact Area
SSL	Soil Screening Level
SVE	Soil Vapor Extraction
SVOC	Semi-Volatile Organic Compound
SWMU	Solid Waste Management Unit
TAPP	Technical Assistance for Public Participation
TNT	Trinitrotoluene
TPH	Total Petroleum Hydrocarbons
TRC	Technical Review Committee
USACE	US Army Corps of Engineers
USACHPPM	US Army Center for Health Promotion and Preventive Medicine
USAEC	US Army Environmental Center

Acronyms & Abbreviations

USEPA	US Environmental Protection Agency
UST	Underground Storage Tank
UXO	Unexploded Ordnance
VOC	Volatile Organic Compound

Installation Information

Installation Locale: The former Fort Devens is located in north-central Massachusetts within the towns of Ayer and Shirley in Middlesex County, and the towns of Harvard and Lancaster in Worcester County. Prior to realignment and closure, Fort Devens included 9,280 acres divided into North Post, Main Post, and South Post. Currently, the Devens Reserve Forces Training Area (RFTA) consists of 5,196 acres primarily on South Post.

Installation Mission: To enhance the readiness of reserve component units by providing training facilities and training support to the total force. Provide base operations support to activities on and off the installation.

Lead Organization:
Base Realignment and Closure Division (BRAC D)

Lead Executing Agencies:
Investigation Phase: Corps of Engineers, New England District
Remedial Action Phase: Corps of Engineers, New England District

Regulatory Participation:
Federal: USEPA Region I
State: Massachusetts Department of Environmental Protection (MADEP)

National Priorities List (NPL) Status: Former Fort Devens was listed on the NPL, 21 Decmeber 1989. Hazardous Ranking Score (HRS) = 42.2

Projected Date for Construction Completion: Remedies in-place/construction complete

Removal from the NPL: Pending completion of LTM phase

Installation Restoration Advisory Board (RAB)/Technical Review Committee (TRC)/Technical Assistance for Public Participation (TAPP) Status: A RAB was created in February 1994. Meetings are held once every two months and are announced and open to the public.

Installation Program Summaries

MMRP (Active)

Primary Contaminants of Concern: OE
Affected Media of Concern: Soil, Groundwater
Estimated Date for RC: 2015
Funding to Date (up to FY05): $ 0
Current Year Funding (FY06): $ 187,666
Cost-to-Complete (FY07+): $ 1,726,000

BRAC IRP

Primary Contaminants of Concern: Metals, Petroleum Hydrocarbons, VOCs, SVOCs
Affected Media of Concern: Soil and Groundwater
Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 2004/2035
Funding to Date (up to FY05): $ 142,722,000
Current Year Funding (FY06): $ 6,600,000
Cost-to-Complete (FY07+): $ 41,193,000

Cleanup Program Summary

Installation Historic Activity:

Created by the demands of World War I, Fort Devens had been a part of the New England scene for 79 years. It was named in honor of Brevet Major General Charles Devens, a Massachusetts son who served in the Union Army during the Civil War, and later was named Attorney General during the Presidency of Rutherford B. Hayes. Originally a temporary cantonment area known as Camp Devens, the post came into existence on September 5, 1917. Two divisions were activated and trained at Camp Devens (the 76th and the 12th) between August, 1917 and November, 1918.

A reception center for selectees following the end of World War I, the camp was designated a demobilization center. Camp Devens processed more than 100,000 selectees into the Army, and as a demobilization center, processed more than 150,000 men out of the Army. On September 1, 1921, Camp Devens was declared excess to the US Army's needs and was put on caretaker status. From 1922, through the summer of 1931, Camp Devens was utilized as a summer training camp for New England-based National Guard troops, Reserve Units, ROTC cadets and Citizens' Military Training Camp candidates. In the summer of 1928, construction of the first two permanent buildings got underway, one a regimental barracks and one a battalion barracks. In 1929, Robert Goddard, pioneer in rocketry, used the post for his rocket tests.

In September, 1931, the 13th Infantry Regiment was garrisoned at Camp Devens along with three companies of the 1st Tank Regiment. The following month the camp was declared a permanent installation, and in 1932, it was formally dedicated as Fort Devens. At that time, the three tank companies were inactivated and immediately reactivated as the 3rd Battalion, 66th Infantry (Light Tanks). A limited building program continued at Fort Devens, along with a post beautification program throughout the 1930s, with much of the funds coming from the Works Progress Administration and Civilian Conservation Corps.

Following the outbreak of World War II in Europe, plans were formulated to increase the US Army. In 1940, the first peace-time draft in the United States was instituted, and Fort Devens was designated a reception center for all New England men destined to serve for one year as "draftee."

A massive building program was instituted at the post in 1940. More than 1,200 wooden buildings, including two new 1,200-bed hospitals, were constructed at a cost of $25 million. In 1941, the Fort Devens airfield (Moore Army Airfield) was built at a cost of more than $680,000. The Whittemore Service Command Base Shop was constructed in 1941-1942 and when it reached its peak load of repairing all damaged US powered vehicles in the First Service Command area, it was known as the largest repair facility in the world.

World War II

Three divisions trained at Fort Devens during World War II. The 1st, 32nd and the 45th, along with the Fourth Women's Army Auxiliary Corps Training Center opened on post in April, 1943. Three months later, the WAAC became the Women's Army Corps.

In February 1944, a Prisoner of War Camp for 5,000 German and Italian soldiers opened at Fort Devens. It remained in operation until May 1946. In addition to training combat soldiers in World War II, Fort Devens was the home of the Chaplain School, the Cook and Baker School and a basic training center for Army nurses.

Following the end of World War II, Fort Devens once again was designated as a demobilization center. On June 30, 1946, Fort Devens, for the second time in its history, was again put on caretaker status. On September 1, 1946, the post was utilized as an extension of the University of Massachusetts so veterans could continue their education. The US Army reactivated Fort Devens as a class one installation in July, 1948. With the outbreak of the Korean Conflict, Fort Devens was designated as a reception center for the third time in history. No divisions were assigned to Fort Devens during the 1950s but two regimental combat teams were assigned, along with two signal battalions; the United States Army Security Agency Training Center and School; the 56th AAA Brigade; the First Army Chemical Defense School; and many smaller units. During the Vietnam Conflict, the 196th Light Infantry Brigade and the 1st and 2nd Battalion, 2nd Brigade, were sent from Fort Devens to Vietnam. During Desert Storm, Fort Devens prepared active, reserve and National Guard units for deployment to Saudi Arabia.

In its 79 years of service to the country and the New England area, more than 400 units (including a US Navy Air Squadron) have called Fort Devens home. In 1991, the Base Realignment and Closure Office recommended that Fort Devens' active duty mission be eliminated and a small reserve enclave and training area be maintained for use by the Reserve and National Guard.

Fort Devens closed its doors as an active duty installation, March 31, 1996, and the next day, it was business as usual at the Devens Reserve Forces Training Area (RFTA).

The US Environmental Protection Agency placed the former Fort Devens on its National Priorities List on November 21, 1989. As a result of the Defense Base Realignment and Closure Act (BRAC) of 1990, the Secretary of Defense identified most of the North and Main Posts at Fort Devens for closure in 1991. The South Post is to remain open as a tactical training area for the Army Reserves.

MMRP

- Prior Year Progress: No work performed on MMRP sites
- Future Plan of Action: Perform Site Investigation at identified sites

BRAC IRP

- Prior Year Progress: In FY05, the Devens BRAC implemented the ROD contingency remedy for Shepley Hill Landfill (SHL) and awarded a 2-yr PBC contract for completing a Comprehensive Site Assessment on the SHL. The cleanup of PCB associated with the former Grant housing area was completed in FY05. All PA/SI assessments were completed on the Grant/Locust/Cavite Housing Areas and reports submitted to the BCT.
- Future Plan of Action: Obtain OPS Certification for AOC's 50 and 57
  Complete Pesticide Soil remediation at remaining housing areas
  Initiate PBC contract for all RAO/LTM sites
  Complete transfer of all LIFOC properties with exception of SHL parcel
  Complete CSA/CAAA for Shepley Hill Landfill

DEVENS RESERVE TRAINING FACILITY

Military Munitions Response Program

MMRP Summary

Total AEDB-R MMRP Sites/AEDB-R sites with Response Complete: 10/0

AEDB-R Site Types

1 Open Burn
1 Small Arms Range
8 Unexploded Munitions/Ordnance

Most Widespread Contaminants of Concern: OE

Media of Concern: Soil, Groundwater

Completed REM/IRA/RA:

None

Total MMRP Funding

Prior Years (up to FY05):	$	0
Current Year Funding (FY06):	$	187,666
Future Requirements (FY07+):	$	1,726,000
Total:	$	1,913,666

Duration of MMRP

Year of MMRP Inception: 2003
Year of MMRP RC: 2015
Year of MMRP Completion including Long-Term Management (LTM): 2015

MMRP Contamination Assessment

MMRP Contamination Assessment Overview

The Department of Defense (DoD) has established the Military Munitions Response Program (MMRP) under Defense Environmental Restoration Program (DERP) to address DoD sites with munitions and explosives of concern (MEC) including unexploded ordnance (UXO), discarded military munitions (DMM), and munitions constituents (MC).

The United States (US) Army's (Army) inventory of Closed, Transferring, and Transferred (CTT) Military ranges and sites, has identified sites eligible for action under MMRP.

The MMRP eligible sites include other than operational ranges where UXO, DMM and MC is known or suspected and the release occurred prior to September 30, 2002. Properties classified as operational ranges are not eligible and, therefore, are excluded from the MMRP program.

The process began with three phases of range inventories. Phase 1 consisted of installations completing an initial data call. USAEC managed the implementation Phases 2 and 3 of the MMRP inventory.

The Phase 2 inventory dealt with active and inactive range considerations. The Phase 3 Army Range Inventory identified ten sites as eligible for the MMRP. The Phase 3 inventory serves as a PA under CERCLA.

MMRP Cleanup Exit Strategy

The installation plans to complete all SIs by 2015 and execute follow on phases/actions as required in the individual site cleanup strategies.

2003

• CTT Inventory, URS, Oct

DEVENS RESERVE TRAINING FACILITY

Military Munitions Response Program Site Descriptions

FTDV-001-R-01
DEVENS RIFLE RANGE #1

SITE DESCRIPTION

The Devens Rifle Range #1, or Range 1A as it was also known, was constructed on the northeastern part of the north post in 1917 and covers all nine acres of the Devens RFTA 3800 Parcel. It was identified by URS during their BRAC CTT Inventory. The range fan for the whole range falls outside the installation boundary into BRAC property and partly into range complex #4, and covers 1,039.85 acres. The range was used as a rifle and machine gun range from 1917 to 1920. No documentation was found indicating a UXO investigation has been performed inside the Devens RFTA 3800 Parcel, yet development of this area has occurred since the range was closed and no UXO have been found so far. The Devens 3800 Parcel has office buildings on it now. The range fan is based on the surface danger zone (SDZ) for the known distance 300-yard rifle range because the range is known to have extended 300 yards, which was used by URS in their maps for the BRAC Fort Devens CTT Inventory report.

STATUS

REGULATORY DRIVER: CERCLA

RAC SCORE: 3 - Moderate Risk

CONTAMINANTS OF CONCERN: OE

MEDIA OF CONCERN: Soil

Phases	Start	End
PA	200303	200310
SI	200606	200709

RC DATE: 200709

CLEANUP STRATEGY

Complete installation-wide SI. Anticipate no further action.

FTDV-002-R-01
DEVENS RIFLE RANGE #2

SITE DESCRIPTION

The Devens Rifle Range #2, or Range 3 as it was also called, was partly located on the north post and partly located on the main post. It was identified by URS during their BRAC CTT Inventory and its whole range fan occupied 782.94 acres. Part of the range fan is included in Range Complex #4. The closed part occupies 28 acres. The range was used as a rifle and machine gun range from 1942 to 1965. No documentation was found indicating a UXO investigation has been performed inside the Devens RFTA 3700 Parcel, yet development of this area has occurred since the range was closed and no UXO have been found so far. The range now occupies the Devens RFTA 3700 Parcel, which has maintenance facilities on it. The range fan is based on the SDZ for the machine gun, automatic rifle, 1000-inch, which was used by URS in their maps for the BRAC Fort Devens CTT Inventory report.

STATUS

REGULATORY DRIVER: CERCLA

RAC SCORE: 2 - Serious Risk

CONTAMINANTS OF CONCERN: OE

MEDIA OF CONCERN: Soil

Phases	Start	End
PA	200303	200310
SI	200606	200709

RC DATE: 200709

CLEANUP STRATEGY

Complete installation-wide SI. Anticipate no further action.

FTDV-003-R-01
DEVENS RIFLE RANGE #3A

SITE DESCRIPTION

The Devens Rifle Range #3A, or Range 11 as it was also known, was constructed on the main post in 1942 and it covers all 137 acres of the main cantonment. The whole range fan, identified by URS during their BRAC CTT Inventory and partly included in Range Complex #4, occupied 698.31 acres. The range was used as a rifle and machine gun range from 1942 to 1953, and as a pistol range from 1954 to 1965. No documentation was found indicating a UXO investigation has been performed inside the Devens main cantonment area, yet development of this area has occurred since the range was closed and no UXO have been found so far. The main cantonment area has office buildings, and maintenance buildings on it. The range fan is based on the SDZ for the machine gun, automatic rifle, 1000-inch and pistol range, which was used by URS in their maps for the BRAC Fort Devens CTT Inventory report.

STATUS

REGULATORY DRIVER: CERCLA

RAC SCORE: 2 - Serious Risk

CONTAMINANTS OF CONCERN: OE

MEDIA OF CONCERN: Soil

Phases	Start	End
PA	200303	200310
SI	200606	200709

RC DATE: 200709

CLEANUP STRATEGY

Complete installation-wide SI and Archives Search. Anticipate no further action.

FTDV-004-R-01
DEVENS RIFLE RANGE #3B

SITE DESCRIPTION

The Devens Rifle Range #3B, or Range 11 as it was also known, was constructed on the main post in 1942 and it covers all 14 acres of the Devens RFTA 1400 Parcel. The whole range fan, identified by URS during their BRAC CTT Inventory and partly included in Range Complex #4, occupied 698.31 acres. The range was used as a rifle and machine gun range from 1942 to 1953, and as a pistol range from 1954 to 1965. No documentation was found indicating a UXO investigation has been performed inside the Devens RFTA 1400 Parcel, yet development of this area has occurred since the range was closed and no UXO have been found so far. The Devens RFTA 1400 Parcel has office buildings on it. The range fan is based on the SDZ for the machine gun, automatic rifle, 1000-inch and pistol range, which was used by URS in their maps for the BRAC Fort Devens CTT Inventory report.

STATUS

REGULATORY DRIVER: CERCLA

RAC SCORE: 2 - Serious Risk

CONTAMINANTS OF CONCERN: OE

MEDIA OF CONCERN: Soil

Phases	Start	End
PA	200303	200310
SI	200606	200709

RC DATE: 200709

CLEANUP STRATEGY

Complete installation-wide SI. Anticipate no further action.

FTDV-005-R-01
FORMER ANTITANK RANGE

SITE DESCRIPTION

The former Antitank Range, or Range 12 as it was also known, was constructed on the main post in 1942 and part of it covers all 14 acres of the Devens RFTA Motor Pool Annex Area. The whole range fan, identified by URS during their BRAC CTT Inventory, occupies 433.73 acres. The range was used as an antitank range from 1942 to 1956, and as a shotgun range from 1957 to 1960. While historical documents record only small arms use, stokes mortars, 37mm and 75mm projectiles, hand grenades, rifle grenades, chemical mortars, various pyrotechnics, and a/p mines were found within the range boundaries on the BRAC property during a 1995 UXO sampling project, but outside of the current installation boundaries. No documentation was found indicating a UXO investigation has been performed inside the Devens RFTA Motor Pool Annex Area. The range fan is based on the SDZ for the 1000" anti-tank range, which was used by URS in their maps for the BRAC Fort Devens CTT Inventory report.

STATUS

REGULATORY DRIVER: CERCLA

RAC SCORE: 1 - High Risk

CONTAMINANTS OF CONCERN: OE

MEDIA OF CONCERN: Soil

Phases	Start	End
PA	200303	200310
SI	200606	200709

RC DATE: 200709

CLEANUP STRATEGY

Complete SI. Anticipate no further action.

FTDV-006-R-01
FORMER EOD RANGE

SITE DESCRIPTION

This is an old explosive ordnance disposal (EOD) area located in the northern part of the south post. The range occupied two acres. The area was used from 1940 to 1957 to destroy faulty and excess munitions. Munitions used on the range to destroy other munitions would have included blasting caps, detonators, TNT, and C3. Munitions that may have been disposed of in this area are hand grenades, rifle grenades, landmines, pyrotechnics, chemical mortars, small arms and large caliber. The area now has a field laser radar demonstration area on it. No documentation was found to indicate a UXO survey has been performed on the property.

STATUS

REGULATORY DRIVER: CERCLA

RAC SCORE: 2 - Serious Risk

CONTAMINANTS OF CONCERN: OE

MEDIA OF CONCERN: Soil, Groundwater

Phases	Start	End
PA	200303	200310
SI	200606	200709
RI/FS	201010	201109

RC DATE: 201109

CLEANUP STRATEGY

Complete installation-wide SI. An RI/FS is scheduled to be conducted in 2011 to include a OE Site Characterization and Removal assessment.

FTDV-007-R-01
FORMER HAND GRENADE RANGE

SITE DESCRIPTION

This is an old hand grenade court that was located on the northwest area of the south post, southwest of the former EOD range. The court occupied one acre and was used from 1940 to 1965. Munitions used on it were most likely live hand grenades, although smoke hand grenades and practice hand grenades could have also been used. A helipad and a jump tower are now located on the area of the former grenade court. Records indicate that a UXO clearance was done in a portion of the range in the 1970s for the purpose of converting it to a medical stretcher obstacle training course. This range is associated with AEDB-R site FTDV-028. The preliminary assessment and site inspection phases have been completed at this AEDB-R site. It was declared response complete in 1993 when all studies were completed and it was determined that no cleanup was required. No UXO clearance was done at the grenade range in relation to this AEDB-R site.

STATUS

REGULATORY DRIVER: CERCLA

RAC SCORE: 3 - Moderate Risk

CONTAMINANTS OF CONCERN: OE

MEDIA OF CONCERN: Soil, Groundwater

Phases	Start	End
PA	200303	200310
SI	200606	200709
RI/FS	201010	201109

RC DATE: 201109

CLEANUP STRATEGY

Complete installation-wide SI. An RI/FS is scheduled to be conducted in 2011 to include a OE Site Characterization and Removal assessment.

FTDV-008-R-01
FORMER MOCK VILLAGE

SITE DESCRIPTION

This is a former mock village that is located right outside of the installation boundary to the northwest of the south post. The village occupied 10 acres and was used from 1940 to 1950. Munitions that would have been on this range include small arms, flares, signal simulators, and smoke and practice grenades. There is now a state department of correction facility -- the Massachusetts Correctional Institution Shirley-Medium --where the mock village was located. The correctional facility was opened in 1991. No documentation was found to indicate a UXO survey has been performed on the property, and no munitions have been reported found on the property.

STATUS

REGULATORY DRIVER: CERCLA

RAC SCORE: 3 - Moderate Risk

CONTAMINANTS OF CONCERN: OE

MEDIA OF CONCERN: Soil

Phases	Start	End
PA	200303	200310
SI	200810	200909

RC DATE: 200909

CLEANUP STRATEGY

Complete installation-wide SI. No further action is anticipated.

FTDV-009-R-01
FORMER TRAINING AREA 22

SITE DESCRIPTION

The Former Training Area 22 was located on what is now the Devens RFTA 3400 Parcel, on the western part of the former main post boundary. The training area occupied 33 acres and was in use from 1950 to 1965. Munitions used in this area were probably small arms blank ammunition and pyrotechnics. The Devens RFTA 3400 Parcel houses administration buildings, warehouses, and other installation facilities. No documentation was found to indicate a UXO survey has been performed on the property, and no munitions have been reported found on the property.

STATUS

REGULATORY DRIVER: CERCLA

RAC SCORE: 3 - Moderate Risk

CONTAMINANTS OF CONCERN: OE

MEDIA OF CONCERN: Soil

Phases	Start	End
PA	200303	200310
SI	200606	200709

RC DATE: 200709

CLEANUP STRATEGY

Complete installation-wide SI. No further action is anticipated.

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FTDV-010-R-01
RANGE COMPLEX #4

SITE DESCRIPTION

Range Complex #4 is located in the areas surrounding the former north and main posts, northeast of the south post. It covers 5,262 acres and consists of all property outside of the former Fort Devens installation boundary that falls within the SDZs used to delineate the potential extent of former ranges. The properties included in Range Complex #4 were portions of small arms range SDZa used from 1917 to 1966. No documentation was found indicating a UXO investigation has been performed in this area, yet development has occurred since the ranges were closed and no UXO have been found to date. Current land uses include recreational areas, residential areas, and undeveloped property.

STATUS

REGULATORY DRIVER: CERCLA

RAC SCORE: 5 - Negligible Risk

CONTAMINANTS OF CONCERN: OE

MEDIA OF CONCERN: Soil

Phases	Start	End
PA	200303	200310
SI	200810	200909

RC DATE: 201509

CLEANUP STRATEGY

Complete installation-wide SI. No further action is anticipated.

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MMRP Schedule

Initiation of MMRP: 2003

Past Phase Completion Milestones

2003
•PA, Oct

Projected ROD/DD Approval Dates: Unknown

Schedule for Five Year Reviews: To be determined

Estimated Completion Date of MMRP including LTM: 2015

Devens Reserve Training Facility MMRP Schedule

(Based on current funding constraints)

AEDB-R#	Phase	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+
FTDV-001-R-01	SI									
FTDV-002-R-01	SI									
FTDV-003-R-01	SI									
FTDV-004-R-01	SI									
FTDV-005-R-01	SI									
FTDV-006-R-01	SI									
	RI/FS									
FTDV-007-R-01	SI									
	RI/FS									
FTDV-008-R-01	SI									
FTDV-009-R-01	SI									
FTDV-010-R-01	SI									

Prior Years Funds

Total Funding up to FY04: $0

FY05

Site Information	Expenditures	FY Total
	$ 0K	**$ 0K**

Total Prior Year Funds: $0K

Current Year (FY06) Requirements

Site Information	Requirements	FY Total
SI	$187,666	**$187,666**

Total Future Requirements: **$1,726,000**

Total MMR Program Cost *(from inception to completion of the MMRP):* **$1,913,666**

DEVENS RESERVE TRAINING FACILITY

Base Realignment and Closure

Transfer Summary

Total Installation Acres: 9,302.00

BRAC Acres: 4,120.00

Parcel Name: Army Housing Area
Recipient organization:
Acres: 2,354
Transfer strategy: Transfer outside of Federal Government
Current land use (educational/recreational)
Future land use (educational/ recreational)
Actual Transfer date: 19960601

Parcel Name: Parcel 4
Recipient organization:
Acres: 246
Transfer strategy: Transfer outside of Federal Government
Current land use (educational/recreational)
Future land use (educational/ recreational)
Actual Transfer date: 19960601

Parcel Name: Parcel A.3
Recipient organization:
Acres: 2.60
Transfer strategy: Transfer outside of Federal Government
Current land use (educational/recreational)
Future land use (educational/ recreational)
Actual Transfer date: 19960601

Parcel Name: Parcel A.3a
Recipient organization:
Acres: 13.90
Transfer strategy: Transfer outside of Federal Government
Current land use (educational/recreational)
Future land use (educational/ recreational)
Actual Transfer date: 19960601

Parcel Name: Parcel A1 SHL, Shepley's Landfill
Recipient organization: Mass Development
Acres: 118
Transfer strategy: Transfer outside of Federal Government
Current land use (educational/recreational)
Future land use (educational/ recreational)
Transfer date: 200905

Transfer Summary

Parcel Name: A15, AOC 69W
Recipient organization: Mass Development
Acres: 11
Transfer strategy: Transfer outside of Federal Government
Current land use (educational/recreational)
Future land use (educational/ recreational)
Transfer date: 200611

Parcel Name: A16, AREE 69E
Recipient organization: Mass Development
Acres: 1
Transfer strategy: Transfer outside of Federal Government
Current land use (industrial/commercial)
Future land use (industrial/commercial)
Transfer date: 200706

Parcel Name: A5, AOC 50
Recipient organization: Mass Development
Acres: 4
Transfer strategy: Transfer outside of Federal Government
Current land use (industrial/commercial)
Future land use (industrial/commercial)
Transfer date: 200706

Parcel Name: A6a, AOC 57
Recipient organization: Mass Development
Acres: 16
Transfer strategy: Transfer outside of Federal Government
Current land use (industrial/commercial and open space)
Future land use (industrial/commercial and open space)
Transfer date: 200611

BRAC Summary

Total AEDB-R IRP Sites/AEDB-R sites with Response Complete: 94/90

Different Site Types:

1 Above Ground Storage Tank	1 Burn Area
3 Contaminated Buildings	2 Contaminated Ground Water
1 Contaminated Sediments	1 Disposal Pit/Dry Well
5 Explosive Ordnance Disposal Area	1 Fire/Crash Training Area
4 Incinerator	13 Landfills
2 Maintenance Yards	1 Open Burn
5 Pesticide Shop	1 Small Arms Range
1 Soil Contamination After Tank Removal	9 Spill Site Area
7 Storage Areas	2 Storm Drains
1 Surface Disposal Areas	1 Surface Impoundment/Lagoon
17 Underground Storage Tanks	1 Underground Tank Farm
10 Unexploded Munitions/Ordnance	1 Washrack
3 Waste Treatment Plant	

Most Widespread Contaminants of Concern: Metals, Petroleum Hydrocarbons, VOCs, SVOCs

Media of Concern: Soil and Groundwater

Completed Removal (REM)/Interim Remedial Action (IRA)/Remedial Action (RA):

1990 - 1996	AOC 43G, Soil and UST Removal, REM (June 1997)
1994 & 2002	AOC 57, Soil Removal, IRA (Sep 2002) and RA (Feb 1996)
1994	Bldg 3657, Soil Removal, Closure Report (Jun 1996)
1994	Bldg 3606, Soil Removal, Closure Report (Aug 1995)
1995	AOC 43 H & I, Soil Removal, Closure Report (May 1996)
1998	AOC 69W, Soil/GW Removal, REM (June 1998)
1998	AOC 32, Soil Removal, REM (Oct 1999)
1999	SA 71, Soil Removal, Closure Report (Aug 2000)
2005	Grant Housing Area, Soil Removal, REM (March 2006)
2005 – 2006	Locut Housing Area, Soil Removal, REM (May 2006)

Total IRP Funding

Prior Years (up to FY05):	$142,722,000
Current Year Funding (FY06):	$ 6,600,000
Future Requirements (FY07+):	$ 41,193,000
Total:	$190,515,000

Duration of IRP

Year of IRP Inception: 1982
Year of IRP RIP/RC: 2004/2035
Year of IRP Completion including Long-Term Management (LTM): 2046

BRAC Contamination Assessment

BRAC IRP Contamination Assessment Overview

The IRP effort at former Fort Devens was initiated in 1982 and has continued under the BRAC program to the present. In 1982 an Installation Assessment (Preliminary Assessment) was performed. In 1985, a RCRA Facility Assessment (RFA) was conducted to identify solid waste management units (SWMUs) to be included in Fort Devens' RCRA part B permit application for a hazardous waste storage facility. A Master Environmental Plan (MEP) was initiated in 1988, in order to define areas requiring investigation, to outline the types of studies required, and to assist in the continuity of the Fort Devens IRP program.

The US Environmental Protection Agency placed the former Fort Devens on its National Priorities List on November 21, 1989. As a result of the Defense Base Realignment and Closure Act (BRAC) of 1990, the Secretary of Defense identified most of the North and Main Posts at Fort Devens for closure in 1991. The South Post is to remain open as a tactical training area for the Army Reserves. In 1991, a Federal Facilities Agreement (FFA) was signed by the Army and the USEPA Region I. The FFA set the framework for the implementation of the CERCLA process at Fort Devens.

An enhanced Preliminary Assessment (PA) was initiated to address all issues under CERCLA and BRAC. The enhanced PA, completed in 1992, identified 59 sites-specific areas requiring environmental evaluation (AREEs) and 10 installation wide AREEs (60 – 69).

From 1993 to 1995, BRAC environmental evaluations were conducted for eight of the installation wide AREEs. The 59 site-specific AREEs became Study Areas (SAs) or Areas of Contamination (AOCs) according to the Site Investigations (SIs) conducted for each AREE. The SIs determined the the SAs that require no further action (NFA), the SAs that would become NFA sites following minor removal of contamination, and the SAs that are designated AOCs and would undergo the Remedial Investigation / Feasibility Study (RI/FS) CERCLA process.

A total of 324 CERCLA sites were identified for environmental investigation at Devens through the aforementioned process. Of these, over 90 percent have been recommended and approved for No Further Action (NFA) status.

Description of Major IRP Concerns:

The remaining sites or AOCs at Devens have a remedy in place and are in the Remedial Action Operation (RAO) or the Long Term Monition (LTM) phases. Sites currently in the RAO phase include AOC 5 (Shepley Hill Landfill), AOC 32/43A (former DRMO), AOC 50 (former Moore Army Airfield), and AOC 43G (Historic Gas Station).

Sites currently in the LTM phase include AOCs 25, 26, 27 (South Post Impact Area - SPIA), AOC 40 (Devens Consolidated Landfill), AOC 41 (SPIA), AOC 57 (Bldg. 3713 Fuel Oil Spill), and AOC 69W (Fuel Oil Spill).

A Supplemental Site Investigation has recently been completed at investigation areas associated with the former Grant, Locust, Cavite Housing Areas. Also, remediation of pesticide impacted soils at the remaining former housing areas (Shirley, Oak, Maple, Buena Vista, Davoe and Salerno) will be performed in FY06/FY07 in accordance with the Environmental Services Cooperative Agreement (ESCA) between the Army and Mass Development.

The two major sites undergoing Remedial Action (Operations) include the Shepley Hill landfill (AOC 5) and the former Moore Army Airfield (AOC 50). The landfill site has a remedy in-place that includes the landfill cap and associated monitoring and a contingency remedy that involves source control via a groundwater pump and treat system that will prevent the further migration of dissolved arsenic in groundwater. The AOC 50 remedy involves an enhanced reductive dechlorination system to treat groundwater contaminated with the solvent PCE.

The Shepley Hill Landfill site is also undergoing a Comprehensive Site Assessment in order to evaluate the condition of the landfill cap and investigate off-site impacts of the arsenic contaminated groundwater not previously addressed during the RI/FS phase. This assessment has a high level of public and regulatory interest.

AOC 32/43A and AOC 43G are waste oil/fuel oil spill sites that impacted groundwater and involve a Monitored Natural Attenuation remedy. The LTM associated with the MNA remedy will continue until the groundwater cleanup goals are achieved.

The AOCs 25, 26 and 27 at the SPIA are sites that have been impacted by explosive compounds due to both prior and ongoing use these sites will require long term groundwater monitoring given the active use of the property as a range. AOC 40 (Devens Consolidated Landfill) will require LTM as per landfill closure requirements. AOCs 57 and 69W are fuel oil release sites where a removal action was implemented to address site risks. The groundwater monitoring (LTM) associated with these sites will demonstrate that the remedy was effective in removing the source of contamination and that groundwater quality will be restored.

Responses to Date Addressing Major IRP Concerns

All work related to the sites specified above is being implemented by the Army in an expeditious manner. The LTM sites have been consolidated under a Performance Based Contract (PBC) that will include a revision of all Long Term Monitoring Plans (LTMP) in order to improve and optimize the LTM activities.

Work related to performing a Comprehensive Site Assessment at the Shepley Hill Landfill is underway via a PBC contract and is expected to be completed by March 2008.

Remedial actions continue at AOC 50 under a Guaranteed Fixed-Price Remediation (GFPR) Contract. The GFPR contractor will complete the OPS Demonstration Report and

obtain EPA certification of OPS by February 2007. The contractor will then successfully complete a Five Year Review in 2008. The GFPR contract's period of performance will end in June 2008.

BRAC IRP Cleanup Exit Strategy

For sites in the RAO phase, the cleanup strategy is to continue to implement and optimize the RAO phase work until the cleanup goals identified in the ROD are achieved. Following completion of the RAO phase, the sites will undergo limited LTM activities to confirm that the site is Response Complete i.e., cleanup objective have been met.

Specifically for the Shepley Hill Landfill (SHLF), the strategy is to complete the Comprehensive Site Assessment (CSA) and the follow-on Corrective Action Alternatives Analysis (CAAA) in order to determine that the remedy for SHLF remains protective of human health and environment OR to identify what changes in the remedy will be necessary for the remedy to remain protective.

For all sites in the LTM phase, the cleanup strategy is to continue to implement and optimize the LTM phase work performed. Each site will be closed-out based following completion of the LTM requirements.

Previous Studies

None available.

DEVENS RESERVE TRAINING FACILITY

Base Realignment and Closure Site Descriptions

FTDV-005 (PAGE 1 0F 2)
SANITARY LANDFILL (AOC 5)

SITE DESCRIPTION

Shepley's Hill Landfill encompasses approximately 84 acres in the northeast corner of the main post of the former Fort Devens. The landfill is bordered to the northeast by Plow Shop Pond, to the north by Nonacoicus Brook (which drains the pond), to the west by Shepley's Hill, to the south by recent commercial development, and to the east by land formerly containing a railroad roundhouse.

The landfill was reportedly operating by the early 1940s, and evidence from test pits within the landfill suggests earlier usage, possibly as early as the mid-nineteenth century. The landfill contains a variety of waste materials, including incinerator ash, demolition debris, asbestos, sanitary wastes, spent shell casings, glass, and other wastes.

Based on boring logs, the maximum depth of the refuse occurs in the central portion of the landfill and is estimated to be about 40 feet below ground surface (bgs). The volume of waste in the landfill has been estimated at over 1.3 x 106 cubic yards (cy), of which approximately 3.2 x 105 cy (25%) is below the water table.

STATUS

REGULATORY DRIVER: CERCLA

PARCEL NAME: A1 SHL

RRSE: High

CONTAMINANTS OF CONCERN:
Arsenic

MEDIA OF CONCERN:
Groundwater

Phases	Start	End
PA	199108	199206
SI	199108	199206
RI/FS	199206	199502
RD	199508	199601
RA(C)	199607	200403
RA(O)	200403	203509
LTM	203510	204510

RIP DATE: 200403
RC DATE: 203509

The landfill was closed in five phases between 1987 and 1992-93 in accordance with Massachusetts regulations at 310 CMR 19.000. The Massachusetts Department of Environmental Protection (MADEP) approved the closure plan in 1985. Closure consisted of installing a 30-mil polyvinyl chloride (PVC) membrane cap, covered with soil and vegetation and incorporating gas vents. Closure also included installation of wells to monitor groundwater quality around the landfill, and construction of drainage swales to control surface water runoff. MADEP issued a Landfill Capping Compliance Letter approving the closure in February 1996.

Subsequent to closure, remedial investigations (RIs) under CERCLA evaluated soil, sediment, surface water, and groundwater conditions at and in the immediate vicinity of the landfill. The results confirmed the presence of various contaminants, particularly certain inorganics and volatile organic compounds (VOCs), in groundwater, sediments and surface water at or adjacent to Shepley's Hill Landfill. A Feasibility Study (FS) and Record of Decision (ROD) resulted in a remedy that required long term monitoring and maintenance of the existing landfill cap and groundwater monitoring.

FTDV-005 (PAGE 2 0F 2)
SANITARY LANDFILL (AOC 5)

The ROD included a contingency provision, which required that a pump and treat system be installed if groundwater contaminant concentrations (primarily arsenic) did not meet risk-based performance standards over time. Due to continued elevated contaminant concentrations, the Army recently installed and started operating a groundwater extraction and treatment system to address groundwater contamination emanating from the northern portion of the landfill.

This site includes the CTC for the Contingency Remedy Pump & Treat RAO phase and includes all P&T performance groundwater monitoring costs (considered to be part of operating costs).

CLEANUP STRATEGY

The RAO phase for P&T operations will continue to be implemented as per the ROD. Concurrently, the Army will complete a Comprehensive Site Assessment (CSA) that will address data gaps and will seek to confirm that the ROD remedy is effective in controlling site risk. The CSA will be completed in late 2007.

The ROD contingency remedy is a source containment remedy that will be required to operate for many years. The CTC reflects this long term RAO duration. The CSA will address ways to reduce the duration of the remedy.

FTDV-025
IMPACT AREA-EOD RANGE (AOC 25)

SITE DESCRIPTION

Fort Devens was selected for cessation of operations and closure by the end of 1995 under Public Law 101-510, the Defense Base Closure and realignment Act of 1990 (BRAC 91). As part of the closure plan, the Department of the Army retained 4,800 acres and those facilities essential to support the Reserve Component training requirement (Defense Base Closure and Realignment Commission, 1991). The retained area includes the section of the base known as South Post. The areas that have been used for range and training exercises make up the South Post Impact Area (SPIA).

Based on Remedial Investigations and comments received from interested parties, the ROD for the SPIA (Horne Engineering Services, 1996) documents the selection of "no action" as the remedy for the SPIA, requiring the development of a Long Term Groundwater Monitoring Plan (LTMP) and an Integrated Natural Resources Management Plan (INRMP). The INRMP, developed concurrently with the LTMP, was to be implemented to monitor the impacts of the current land use to ecosystems in the SPIA. The details of the INRMP were prepared in a separate document in coordination with the USEPA, US Fish and Wildlife Service and the MADEP.

STATUS

REGULATORY DRIVER: CERCLA

PARCEL NAME: None

RRSE: High

CONTAMINANTS OF CONCERN:
Explosives, Metals

MEDIA OF CONCERN:
Groundwater

Phases	Start	End
PA	199108	199206
SI	199108	199303
RI/FS	199204	199408
RD	199607	199612
RA(C)	199612	199805
LTM	199805	203709

RC DATE: 199805

The objectives of the LTM sampling program are to demonstrate contaminant containment within the SPIA. In addition, water near AOC 41 is monitored to determine if movement of VOCs will impact drinking water well D-1. The LTMP for the SPIA outlines the procedures and schedules for monitoring ground water at discharge points. Stone & Webster Environmental Technology and Services developed the LTMP for the US Army Corps of Engineers New England District (USACE) in May 1997. The primary Contaminants of Concern at AOCs 25, 26 and 27 are metals and explosive compounds.

CLEANUP STRATEGY

The LTM groundwater sampling at AOCs 25, 26, and 26 along with the general SPIA monitoring wells along the perimeter of the active sites will continue in order to demonstrate contaminate containment within SPIA and therefore compliance with the ROD.

FTDV-026
ZULU RANGE (AOC 26)

SITE DESCRIPTION

Fort Devens was selected for cessation of operations and closure by the end of 1995 under Public Law 101-510, the Defense Base Closure and realignment Act of 1990 (BRAC 91). As part of the closure plan, the Department of the Army retained 4,800 acres and those facilities essential to support the Reserve Component training requirement (Defense Base Closure and Realignment Commission, 1991). The retained area includes the section of the base known as South Post. The areas that have been used for range and training exercises make up the South Post Impact Area (SPIA).

Based on Remedial Investigations and comments received from interested parties, the ROD for the SPIA (Horne Engineering Services, 1996) documents the selection of "no action" as the remedy for the SPIA, requiring the development of a LTMP and an INRMP. The INRMP, developed concurrently with the LTMP, was to be implemented to monitor the impacts of the current land use to ecosystems in the SPIA. The details of the INRMP were prepared in a separate document in coordination with the USEPA, US Fish and Wildlife Service and the MADEP.

STATUS

REGULATORY DRIVER: CERCLA

PARCEL NAME: None

RRSE: High

CONTAMINANTS OF CONCERN:
Explosives, Metals

MEDIA OF CONCERN:
Groundwater

Phases	Start	End
PA	199108	199206
SI	199108	199303
RI/FS	199204	199408
RD	199607	199612
RA(C)	199612	199805
LTM	199805	203709

RC DATE: 199805

The objectives of the LTM sampling program are to demonstrate contaminant containment within the SPIA. In addition, water near AOC 41 is monitored to determine if movement of VOCs will impact drinking water well D-1. The LTMP for the SPIA outlines the procedures and schedules for monitoring ground water at discharge points. Stone & Webster Environmental Technology and Services developed the LTMP for the US Army Corps of Engineers New England District (USACE) in May 1997. The primary Contaminants of Concern at AOCs 25, 26 and 27 are metals and explosive compounds.

CLEANUP STRATEGY

The LTM groundwater sampling at AOCs 25, 26, and 26 along with the general SPIA monitoring wells along the perimeter of the active sites will continue in order to demonstrate contaminate containment within SPIA and therefore compliance with the ROD.

FTDV-027
HOTEL RANGE (AOC 27)

SITE DESCRIPTION

Fort Devens was selected for cessation of operations and closure by the end of 1995 under Public Law 101-510, the Defense Base Closure and realignment Act of 1990 (BRAC 91). As part of the closure plan, the Department of the Army retained 4,800 acres and those facilities essential to support the Reserve Component training requirement (Defense Base Closure and Realignment Commission, 1991). The retained area includes the section of the base known as South Post. The areas that have been used for range and training exercises make up the South Post Impact Area (SPIA).

Based on Remedial Investigations and comments received from interested parties, the ROD for the SPIA (Horne Engineering Services, 1996) documents the selection of "no action" as the remedy for the SPIA, requiring the development of a LTMP and an INRMP. The INRMP, developed concurrently with the LTMP, was to be implemented to monitor the impacts of the current land use to ecosystems in the SPIA. The details of the INRMP were prepared in a separate document in coordination with the USEPA, US Fish and Wildlife Service and the MADEP.

The objectives of the LTM sampling program are to demonstrate contaminant containment within the SPIA. In addition, water near AOC 41 is monitored to determine if movement of VOCs will impact drinking water well D-1. The LTMP for the SPIA outlines the procedures and schedules for monitoring ground water at discharge points. Stone & Webster Environmental Technology and Services developed the LTMP for the US Army Corps of Engineers New England District (USACE) in May 1997. The primary Contaminants of Concern at AOCs 25, 26 and 27 are metals and explosive compounds.

STATUS

REGULATORY DRIVER: CERCLA

PARCEL NAME: None

RRSE: High

CONTAMINANTS OF CONCERN:
Explosives, Metals

MEDIA OF CONCERN:
Groundwater

Phases	Start	End
PA	199108	199206
SI	199108	199303
RI/FS	199204	199408
RD	199607	199612
RA(C)	199612	199805
LTM	199805	203709

CLEANUP STRATEGY

The LTM groundwater sampling at AOCs 25, 26, and 26 along with the general SPIA monitoring wells along the perimeter of the active sites will continue in order to demonstrate contaminate containment within SPIA and therefore compliance with the ROD.

FTDV-032 (PAGE 1 OF 3)
DRMO YARD (AOC 32)

SITE DESCRIPTION

Areas of Contamination (AOCs) 32 and 43A (now combined in Lot 10) are historically contaminated locations within the former Fort Devens. AOC 32, the former Defense Reutilization and Marketing Office Yard (DRMO) is located on the west side of Cook Street (West Yard) in the northeast portion of the former Main Post. AOC 43A, the former Petroleum, Oils, and Lubricants (POL) Storage Area, is located to the south of AOC 32, across Market Street. There is a Site Investigation (SI), Remedial Investigation (RI), and a Feasibility Study (FS) for each AOC, but the sites were combined administratively under one Record of Decision (ROD), signed in January 1998, and are combined in one section of the first Five Year Site Review (HLA, 2000). There are separate Monitored Natural Attenuation Reports (SWETS, 2000) and Long Term Monitoring Plans (LTMPs) are appendices to them (SWETS, 2001). Contaminants of Concern (COCs) include volatile organic compounds. AOC 32 and 43A were modified by the construction of a large warehouse that was completed in 2001. The warehouse and pavements cover major portions of both AOCs, altering the site hydrology. Monitoring wells were destroyed in the process. During construction, test pits were dug to determine soil suitability on the warehouse site, providing data that defined bedrock topography. The new warehouse and its associated pavements radically modified the ground surface, drainage, and groundwater recharge potential to the overburden and bedrock. New replacement monitoring wells were installed at locations to monitor groundwater flow patterns and contamination around former release points.

STATUS

REGULATORY DRIVER: CERCLA

PARCEL NAME: A.3a

RRSE: High

CONTAMINANTS OF CONCERN:
Volatile Organic Compounds

MEDIA OF CONCERN:
Groundwater

Phases	Start	End
PA	199108	199206
SI	199108	199303
RI/FS	199204	199512
RD	199412	199512
IRA	199212	199302
RA(C)	199808	199906
RA(O)	199906	199909
LTM	199909	202909

RIP DATE: 199906

AOC 32 (DMRO Yard) was an active materials storage facility from at least 1964 to 1995. It consisted of three fenced areas where various materials were processed and stored, and former waste oil Underground Storage Tank (UST #13). UST #13 was located in an area that appears to be in a separate groundwater regime. The tank was removed in 1992. Contaminated soils were excavated and disposed offsite. Monitored natural attenuation was the selected remedy for cleaning up the ground water.

AOC 43A served as the central distribution point for all gasoline stations at Fort Devens during the 1940s and 1950s, and was subsequently used to store fuels for various purposes. The distribution facility consisted of a main gasoline station, a pump house, four 12,000-gallon underground storage tanks (USTs), one 10,000-gallon UST, two 12,000-gallon above-ground storage tanks (ASTs), and two 8,000-gallon ASTs.

Gasoline was delivered by rail car and transferred to tanks.

The POL storage area consisted of a fenced lot within a developed industrial area of buildings, roads, and grass lots. A wooded area on a rock outcrop bounded the east side. Railroad tracks formed the northern boundary. The Site Investigation indicated that a low level of xylene and an elevated level of petroleum hydrocarbons existed in the subsurface soils. The RI concluded that groundwater contamination required a remedial action evaluation.

After the Feasibility Study was completed, monitored natural attenuation was the selected remedy in the ROD for groundwater.

The ROD for the combined sites was signed in February 1998. Monitored natural attenuation was the selected remedy. Provisions included removal of 1,300 cubic yards of material from the site and monitored natural attenuation at the UST #13 and POL areas.

The evaluation of contaminants and potential receptors at the 32/43A sites considered that Lot 10 would remain in an area restricted by deed to include limited development and a ban on the installation of wells for drinking water. The current combination of parking lot development and a warehouse (industrial use) is compatible with that intention, and no zoning changes are anticipated.

Ground water will therefore not be available for human consumption. There is limited surface water and no identified aquatic habitat (a detention basin at the south-west corner of Lot 10 is normally dry, with the water table estimated to be at least 10 feet below the invert elevation of the pond).

The major remedy components are: Establishing institutional controls; Installing additional groundwater monitoring wells; Providing for MNA; Collecting/assessing MNA data and performing groundwater modeling; Performing long-term groundwater monitoring on an annual basis; Reviewing the site every 5 years for 30 years or until contamination is reduced to acceptable concentrations; Providing annual data reports to regulators and stakeholders.

Cleanup goals for ground water and natural attenuation assessment sampling parameters are presented in the ROD. If the MNA results indicate that the groundwater contamination plume cannot be remediated within 30 years, appropriate additional cleanup actions are to be evaluated and implemented. If there is an indication that contaminants are migrating into the currently established Zone II boundary or an area sufficiently inside that boundary according to criteria in the ROD (that at a minimum will meet drinking water standards), then the Army will implement an additional remedial action which will be protective of human health and the environment.

As the selected remedies may result in hazardous substances remaining on-site in soil and ground water above certain health-based exposure levels, five-year reviews will be conducted to ensure that the remedy at each AOC continues to provide adequate protection of human health and the environment.

CLEANUP STRATEGY

The RAO phase for this site is projected to continue for the next 10 years or until such time that the MNA remedy has demonstrated that the groundwater clean-up goals have been met. The follow-on LTM phase is projected for an additional 3 years or six sampling rounds in order to confirm that the remedy has been effective.

NOTE: All funding for this site is consolidated under FTDV-043.

FTDV-040 (PAGE 1 OF 2)
COLD SPRING BROOK DUMP (AOC 40)

SITE DESCRIPTION

Fort Devens is a CERCAL (NPL) site. The Devens Consolidation Landfill (DCL) was constructed on the former Fort Devens golf course driving range to accommodate excavated material from six remedial areas. The six study areas (SAs) and areas of concern (AOCs) were:

SA12: A half-acre location where construction debris and yard waste were deposited (approx 8,700 cubic yards (cy));

SA13: A 1-acre area used from 1965 to the mid-1990's for yard-waste (approx 10,000 cy);

AOC9: An area used for storing wood, concrete, asphalt, metal, brick, glass, and tree stumps (approx 121,000 cy);

AOC11: A former landfill used from 1975 to 1980 for disposal of wood-frame hospital demolition debris (approx 35,000 cy);

AOC40: Four acres used for construction debris, ash, stumps, and logs (approx 125,400 cy);

STATUS

REGULATORY DRIVER: CERCLA

PARCEL NAME: TBD

RRSE: High

CONTAMINANTS OF CONCERN:
PCBs, Pesticides, Metals

MEDIA OF CONCERN:
Groundwater

Phases	Start	End
PA	199108	199206
SI	199108	199206
RI/FS	199509	199702
RD	199904	199908
RA(C)	199909	200212
RA(O)	200303	200309
LTM	200310	203709

RIP DATE: 200303
RC DATE: 200309

AOC 41: A one quarter-acre landfill used up to the 1950s for disposal of non-explosive material and household debris (approx 1,500 cy).

The EPA approved the ROD for landfill remediation of those six areas in July 1999. It included provisions for either on-site or off-site disposal options. The on-site landfill construction alternative was selected as the best value. Construction of the DCL commenced in September 2000 and was completed in November 2002. The Remedial Action Closure Report prepared by Shaw Environmental (formerly Stone & Webster, Inc.) in September 2003 was accepted, certifying that the DCL was constructed and capped in accordance with the ROD, and met the performance standards and/or response objectives in the ROD.

The Closure Report provides the operations and maintenance manual for the DCL. The USACE is responsible for operating, monitoring, and inspecting the facility. Operations features include routine site access, gas monitoring, groundwater and surface water sampling, operation of monitoring equipment, scheduled operating events, and

unscheduled operating events. Leachate continues to be generated with permitted wastewater discharge to the Devens Sewerage System by the terms of the authorized industrial wastewater discharge permit. Effluent criteria and reporting requirements are in the permit requirements.

All soil remediation at the six sites is complete and the sites have been restored in accordance with the approved Restoration Plan (Devens Consolidation Landfill (DCL) Project, Devens, Massachusetts, Completion Memorandum, September 2003). The wetland and upland habitat restoration areas have been evaluated during the first three or more growing seasons to ensure success and to identify and take needed corrective actions, if any, based on the periodic monitoring.

Ground water is sampled from locations and for parameters determined by the Base Closure Team (BCT). Since landfill completion, monitoring has been conducted at 3 wells in 2003 (two events) and in the spring 2004 event, expanding to all 7 monitoring wells for the fall 2004 event. The DCL was inspected in May and November 2004. Groundwater monitoring wells were sampled in May and October 2004. Leachate is being sampled and the results reported.

CLEANUP STRATEGY

The LTM phase monitoring will continue for the next 30 years in order to demonstrate that the DCL remains in compliance with all State and Federal environmental regulations as they pertain to solid waste landfills.

Note: All required LTM of the Devens Consolidated Landfill (DCL) i.e., LTM Phase GW Monitoring, Cap Maintenance and Inspections are included under this Site No.

FTDV-041
UNAUTHORIZED DUMP AREA (AOC 41)

SITE DESCRIPTION

AOC 41 was a dump site located on the South Post with the South Post Impact Area (SPIA). This site was evaluated under the Devens Landfill Consolidation project as indicated under site number FTDV-040. The site included a quarter-acre landfill used that was used up to the 1950s for disposal of non-explosive material and household debris (approx 1,500 cy). This material was removed and placed in the DCL. The impact to groundwater beneath the dump was investigated under the RI/FS for the SPIA and the resulting LTM requirements were incorporated into the ROD for the SPIA.

The objectives of the LTM sampling program at AOC 41 is to determine if movement of VOCs will impact drinking water well D-1.

CLEANUP STRATEGY

The LTM groundwater sampling at AOCs 41 will continue in order to demonstrate containment are attenuating and that the drinking water well D-1 will not be impacted.

STATUS

REGULATORY DRIVER: CERCLA

PARCEL NAME: N/A (Retained)

RRSE: High

CONTAMINANTS OF CONCERN:
Volatile Organic Compounds

MEDIA OF CONCERN:
Groundwater

Phases	Start	End
PA	199108	199206
SI	199111	199410
RI/FS	199509	199702
RD	199904	199908
RA(C)	199909	200212
RA(O)	200303	200309
LTM	200310	203709

RIP DATE: 200303
RC DATE: 200309

FTDV-043 (PAGE 1 OF 3)
HISTORIC GAS STATION (AOC 43A)

SITE DESCRIPTION

Areas of Contamination (AOCs) 32 and 43A (now combined in Lot 10) are historically contaminated locations within the former Fort Devens. AOC 32, the former Defense Reutilization and Marketing Office Yard(DRMO) is located on the west side of Cook Street (West Yard) in the northeast portion of the former Main Post. AOC 43A, the former Petroleum, Oils, and Lubricants (POL) Storage Area, is located to the south of AOC 32, across Market Street. There is a Site Investigation (SI), Remedial Investigation (RI), and a Feasibility Study (FS) for each AOC, but the sites were combined administratively under one Record of Decision (ROD), signed in January 1998, and are combined in one section of the first Five Year Site Review (HLA, 2000). There are separate Monitored Natural Attenuation Reports (SWETS, 2000) and Long Term Monitoring Plans (LTMPs) are appendices to them (SWETS, 2001). Contaminants of Concern (COCs) include volatile organic compounds. AOC 32 and 43A were modified by the construction of a large warehouse that was completed in 2001. The warehouse and pavements cover major portions of both AOCs, altering the site hydrology. Monitoring wells were destroyed in the process. During construction, test pits were dug to determine soil suitability on the warehouse site, providing data that defined bedrock topography. The new warehouse and its associated pavements radically modified the ground surface, drainage, and groundwater recharge potential to the overburden and bedrock. New replacement monitoring wells were installed at locations to monitor groundwater flow patterns and contamination around former release points.

STATUS

REGULATORY DRIVER: CERCLA
PARCEL NAME: A.3 & A.3a
RRSE: High
CONTAMINANTS OF CONCERN: VOCs
MEDIA OF CONCERN: Groundwater

Phases	Start	End
PA	199108	199206
SI	199111	199410
RI/FS	199301	199503
RD	199804	199806
IRA	199207	199208
RA(C)	199810	199905
RA(O)	199906	201709
LTM	201709	202009

RIP DATE: 199906
RC DATE: 201709

AOC 32 (DMRO Yard) was an active materials storage facility from at least 1964 to 1995. It consisted of three fenced areas where various materials were processed and stored, and former waste oil Underground Storage Tank (UST #13). UST #13 was located in an area that appears to be in a separate groundwater regime. The tank was removed in 1992. Contaminated soils were excavated and disposed offsite. Monitored natural attenuation was the selected remedy for cleaning up the ground water.

AOC 43A served as the central distribution point for all gasoline stations at Fort Devens during the 1940s and 1950s, and was subsequently used to store fuels for various purposes. The distribution facility consisted of a main gasoline station, a pump house, four 12,000-gallon underground storage tanks (USTs), one 10,000-gallon UST, two 12,000-gallon above-ground storage tanks (ASTs), and two 8,000-gallon ASTs. Gasoline was

delivered by rail car and transferred to tanks. The POL storage area consisted of a fenced lot within a developed industrial area of buildings, roads, and grass lots. A wooded area on a rock outcrop bounded the east side. Railroad tracks formed the northern boundary. The Site Investigation indicated that a low level of xylene and an elevated level of petroleum hydrocarbons existed in the subsurface soils. The RI concluded that groundwater contamination required a remedial action evaluation. After the Feasibility Study was completed, monitored natural attenuation was the selected remedy in the ROD for groundwater.

The ROD for the combined sites was signed in February 1998. Monitored natural attenuation was the selected remedy. Provisions included removal of 1,300 cubic yards of material from the site and monitored natural attenuation at the UST #13 and POL areas.

The evaluation of contaminants and potential receptors at the 32/43A sites considered that Lot 10 would remain in an area restricted by deed to include limited development and a ban on the installation of wells for drinking water. The current combination of parking lot development and a warehouse (industrial use) is compatible with that intention, and no zoning changes are anticipated.

Ground water will therefore not be available for human consumption. There is limited surface water and no identified aquatic habitat (a detention basin at the south-west corner of Lot 10 is normally dry, with the water table estimated to be at least 10 feet below the invert elevation of the pond).

The major remedy components are:
Establishing institutional controls;
Installing additional groundwater monitoring wells;
Providing for MNA;
Collecting/assessing MNA data and performing groundwater modeling;
Performing long-term groundwater monitoring on an annual basis;
Reviewing the site every 5 years for 30 years or until contamination is reduced to acceptable concentrations;
Providing annual data reports to regulators and stakeholders.

Cleanup goals for ground water and natural attenuation assessment sampling parameters are presented in the ROD. If the MNA results indicate that the groundwater contamination plume cannot be remediated within 30 years, appropriate additional cleanup actions are to be evaluated and implemented. If there is an indication that contaminants are migrating into the currently established Zone II boundary or an area sufficiently inside that boundary according to criteria in the ROD (that at a minimum will meet drinking water standards), then the Army will implement an additional remedial action which will be protective of human health and the environment. As the selected remedies may result in hazardous substances remaining on-site in soil and ground water above certain health-based exposure levels, five-year reviews will be conducted to ensure that the remedy at each AOC continues to provide adequate protection of human health and the environment.

HISTORIC GAS STATION (AOC 43A)

CLEANUP STRATEGY

The RAO phase for this site is projected to continue for the next 10 years or until such time that the MNA remedy has demonstrated that the groundwater clean-up goals have been met. The follow-on LTM phase is projected for an additional 3 years or six sampling rounds in order to confirm that the remedy has been effective.

FTDV-050 (PAGE 1 OF 2)
MAAF WWII FUEL POINT (AOC 50)

SITE DESCRIPTION

The Site is located on the northeastern boundary of the former Moore Army Airfield (MAAF), within the former North Post portion of the Devens Reserve Forces Training Area (RFTA), Ayer, Massachusetts. The AOC 50 Source Area comprises less than 2 acres and surrounds Buildings 3803 (the former parachute shop), 3840 (former parachute shakeout tower), 3824 (a gazebo), and 3801 (the former 10th Special Forces airplane parachute simulation building). Sources of groundwater contamination within AOC 50 include two World War II fueling systems, a drywell formerly connected to the parachute shakeout tower, and the tetrachloroethene (PCE) drum storage area; these sources are collectively referred to as the Source Area. Although these sources have been removed or taken out of commission, groundwater underlying AOC 50 contains elevated concentrations of volatile organic compounds (VOCs), most notably PCE. The primary area of groundwater contamination at AOC 50 is referred to as the Southwest Plume, which extends from the Source Area approximately 3,000 feet (ft) down-gradient to the Nashua River.

STATUS

REGULATORY DRIVER: CERCLA

PARCEL NAME: 4, A5, AOC 50

RRSE: High

CONTAMINANTS OF CONCERN:
PCE, Metals

MEDIA OF CONCERN:
Groundwater

Phases	Start	End
PA	199108	199206
SI	199108	199506
RI/FS	199507	200109
IRA	199212	199709
RA(C)	200010	200109
RA(O)	200109	202609
LTM	202610	203010

RIP DATE: 200109
RC DATE: 202610

All but approximately 14 acres of the former MAAF (approximately 246 acres total) were transferred to Mass Development in 1997 for reuse. Currently, the airfield is closed to aircraft traffic and is used by the Massachusetts State Police for training and vehicle storage. The MAAF is zoned for Special Use II and Innovation and Technology Business. Under the Devens Reuse Plan (November 14, 1994), Special Use II and Innovation and Technology Business includes a broad range of industrial, light industrial, office, and research and development uses. There are currently no plans for development of the MAAF, although the area can be developed if interested parties are identified. The Devens RFTA retained approximately 9 acres of the former airfield for vehicle storage and maintenance and approximately 4 acres in and around the AOC 50 Source Area.

The remedy for this site involves an enhanced reductive dechlorination (ERD) system consisting of 42 reagent injection wells located in the Source Area and Southwest Plume and the in-well stripping (IWS) system consists of two recirculation wells located at the downgradient end of the Site (upgradient of the Nashua River).

MAAF WWII FUEL POINT (AOC 50)

The soil vapor extraction (SVE) system, which consisted of six extraction wells located in the former Drum Storage Area (Source Area), was shut-down in November 2005 with BCT approval as the limits of recoverable mass were reached.

CLEANUP STRATEGY

The site is being remediated under a GFPR contract that was put in place in 2001. The contract period of performance will end in June 2008.

The RAO phase remedy for this site is projected to continue for the next 20 years or until the remedial action objectives for the site are achieved. Following completion of the active remediation phase i.e., reagent injections and IWS operation, the site will undergo LTM phase activities projected for an additional four years in order to confirm that the remedy has been effective in meeting the remedial action objectives.

FTDV-057 (PAGE 1 OF 2)
BLDG 3713 FUEL OIL SPILL (SA 57)

SITE DESCRIPTION

Area of Concern (AOC) 57 is located between Barnum Road and Cold Spring Road on the northeast side of the former Main Post of Fort Devens. AOC 57 was primarily used to store and maintain military vehicles. AOC 57 was first investigated as Study Area (SA) 57 - Building 3713 Fuel Oil Spill, and consisted of three sub-areas (Area 1, Area 2, and Area 3) located southeast of Building 3713 and former buildings 3756, 3757, and 3758. These sub-areas received storm water runoff and wastes from vehicle maintenance at storage yards associated with those buildings. The vehicle storage yards were abandoned in 1998, and the pavements and fencing were removed. Those yards are now soil and grass-covered areas. A Record of Decision (ROD) was signed on September 28, 2001 for the AOC 57 Area 1, Area 2 and Area 3 and presented the Army's selected remedial action for soil and groundwater contamination. The selected remedy for Area 1 was no further action. The selected remedy for Area 2 and Area 3 was excavation of contaminated soil and institutional controls to limit exposure to residual soils and groundwater. Area 1, Area 2 and Area 3 are located within Lease Parcel A6a that the Army plans to transfer to Mass Development.

STATUS

REGULATORY DRIVER: CERCLA

PARCEL NAME: A6a, AOC 57

RRSE: Medium

CONTAMINANTS OF CONCERN:
VOCs, SVOCs, Metals

MEDIA OF CONCERN:
Groundwater

Phases	Start	End
PA	199108	199206
SI	199111	199307
RI/FS	199503	199912
RD	200006	200009
IRA	199404	199908
RA(C)	200110	200310
RA(O)	200203	200310
LTM	200403	201009

RIP DATE: 200310
RC DATE: 200310

The ROD specifies the following key components as the selected remedy: Establish and enforce institutional controls, including deed and/or land use restrictions, to restrict or prevent potential human exposure to site soil and ground water contaminants left in place; Monitor ground water and surface water quality for any potential off-site migration of contaminants and verify that elevated concentrations decrease over time; Institute wetlands protection; and Conduct five-year reviews of the data collected and assess the effectiveness of the remedy.

Data obtained and observations made at Area 2 during both the January 2002 soil removal work and subsequent investigations for further soil delineation and petroleum waste recovery efforts between 2002 and 2003 resulted in discovery of site conditions at AOC 57 Area 2 that are different than conditions upon which the September 2001 ROD were based. Therefore, on August 29, 2003 the BRAC Environmental Coordinator proceeded to prepare an Explanation of Significant Differences (ESD) to address the differences between the remedial action being undertaken and the remedial action set forth in the ROD.

BLDG 3713 FUEL OIL SPILL (SA 57)

CLEANUP STRATEGY

It is currently projected that the LTM phase groundwater monitoring will continue at AOC 57 until 2010 or until such time that the effectiveness of the remedy has been demonstrated.

FTDV-069
PAST SPILL SITES (AREE 69)/PESTICIDES FH

SITE DESCRIPTION

This site number addresses the planned activities to remediate pesticide contaminated soil located at six former military housing areas (HA) (Shirley, Oak, Maple, Buena Vista, Davao and Salerno) within former Fort Devens (Devens). The remedial action is being taken to satisfy the Environmental Services Cooperative Agreement (ESCA) between the Army and the current landowners Mass Development. The ESCA defines the anticipated future land-use for each HA and the associated means and methods for deriving cleanup standards under the Massachusetts Contingency Plan (MCP).

STATUS

REGULATORY DRIVER: CERCLA

PARCEL NAME: Army Housing

RRSE: High

CONTAMINANTS OF CONCERN: Pesticides

MEDIA OF CONCERN: Soil

Phases	Start	End
PA	199101	199206
SI	199302	199506
RA(C)	199410	201310

RC DATE: 201310

As part of the ESCA between the Army and Mass Development, the Army has agreed to remediate pesticide and other potential contaminants of concern to levels that reduce risk to agreed upon redevelopment standards (residential or commercial redevelopment). The HAs subject to this remedial action include:
Shirley – 22 houses - slated for residential redevelopment
Oak – 13 houses – slated for commercial redevelopment
Maple – 29 houses – slated for commercial redevelopment
Buena Vista – 17 houses – 7 slated for residential redevelopment and 10 for open space reuse.
Davao – 19 houses – slated for commercial redevelopment
Salerno – 71 houses – slated for commercial redevelopment

Mass Development is the new owner of part of the transferred property and has plans to demolish former Army housing for future recreational, residential, and commercial uses. It has been determined through evaluation of historical background information and soil analyses, that the Army applied pesticides to the soil (in a manner approved at the time of application) beneath several housing complexes at Devens during construction. Although the property has been transferred to Mass Development, the Army has agreed to remove pesticide-contaminated soils from beneath the building foundations by first removing the slabs of buildings with pesticide-impacted soils and then excavating the impacted soils and confirming reduction of pesticides to levels posing no significant risk (NSR) via confirmatory sampling and risk evaluation.

CLEANUP STRATEGY

The remedial actions for this site will commence in late 2006 and will be completed in 2007 subject to the availability of funding.

FTDV-071 (PAGE 1 OF 2)
ROUND HOUSE (SA 71)

SITE DESCRIPTION

SA 71, the former railroad roundhouse site, consists of a strip of land extending south from Plow Shop Pond along the installation boundary for approximately 1,100 feet. The railroad roundhouse site tapers from a width of about 250 feet at Plow Shop Pond to 100 feet near monitoring well SHL-24. The area is sparsely vegetated with small trees, brush, and grass, and is discernable from adjacent areas to the west which have been excavated and are not vegetated. With the exception of a steep bank at the edge of the pond, the area has little discernable slope. The elevation of the land surface is approximately 235 feet above sea level.

From approximately 1900 to 1935, the Boston and Maine Railroad (B&MRR) operated a railroad roundhouse south of Plow Shop Pond (E&E, 1993). The railroad roundhouse was associated with an extensive freight yard serving the Fitchburg Division, Worcester, Nashua, and Portland Branch of the B&MRR. The location of the former railroad roundhouse has been inferred from site observations and from overlaying a B&MRR drawing (Right-of-Way and Track Map) prepared by the Office of Valuation Engineer (B&MRR, 1919) on existing maps.

STATUS

REGULATORY DRIVER: CERCLA

PARCEL NAME: None

RRSE: High

CONTAMINANTS OF CONCERN: PAHs, Metals

MEDIA OF CONCERN: Soil, Sediment

Phases	Start	End
PA	199301	199301
SI	199412	199509
RI/FS	199905	199912
RD	200001	200007
RA(C)	199911	200403
LTM	200403	200708

RC DATE: 200403

In addition to the roundhouse, named structures on the B&MRR drawing include an ash pit, coal trestle, water tower, office, oil house, and a 8-inch drain leading northeast from the ash pit. Several numbered, but otherwise unidentified, small buildings are also shown. Review of the drawing shows that the roundhouse and ancillary structures occupied approximately 6 acres, while tracks and sidings in the adjacent freight yard occupied approximately 35 additional acres. Freight yard operations were discontinued in 1927; however, the roundhouse (or at least the office) was still in operation in 1931 (B&MRR, 1931). By 1942, all of the buildings except the brick storeroom and the water tower had been removed (Sanborn, 1942). From aerial photographs taken in 1943, it appears that the roundhouse and associated facilities had been inactive for several years.

The Army currently owns the land formerly owned and occupied by the railroad. Although all buildings and track on the land had been removed, a number of concrete foundations still remained where the roundhouse was located. The pump house identified by Sanborn (Sanborn, 1921 and 1942) probably corresponds to a partially buried concrete structure that was still visible at the edge of Plow Shop Pond, and several concrete footings that may have supported a water tower remained just north of the roundhouse.

ROUND HOUSE (SA 71)

A wooden rack supporting five abandoned 750 gallon tanks also remained. The ash pit, which resembled a building foundation, constructed of large stone blocks, also remained.

At the time of the SI and SSI, surficial soils at the railroad roundhouse consisted of coal ash fill, maintenance by-product deposits, and naturally deposited sand, silty sand, and peat. A layer of coal, coal ash, and clinker existed across most of the site. The layer was typically about 1 foot thick and found at or within a few inches of the ground surface. Occasionally, the layer extended to over 2 feet bgs. An area with estimated dimensions of approximately 60 by 150 feet between the northern edge of the roundhouse turntable and Plow Shop Pond was occupied by mounded deposits of interpreted maintenance by-product materials. This material appeared to consist predominantly of coal ash, but also contained fragments of brick, coal, porcelain, and other debris including occasional pieces of a soft, shiny metal that looked as if it had solidified after splashing, molten, on a solid surface. These deposits sloped to the north, forming the pond bank, and out into the pond. To the east, the edge of the mounded material was bordered by a low-lying flood plain which is the location of an 8-inch drain outlet. To the west the mounded material appeared To be contained by natural sandy soils.

CLEANUP STRATEGY

The remediation of contaminated upland soil was completed in 1999. The evaluation of contaminated sediments adjacent to the upland soils along the shoreline of Plow Shop Pond is currently underway. This risk assessment/evaluation will be utilized to determine if cleanup of the pond sediments is warranted. If a removal action is necessary, this work will be implemented in 2007 subject to the availability of funding.

FTDV-077 (PAGE 1 OF 2)
HISTORIC GAS STATIONS (AOC 43G & J)

SITE DESCRIPTION

The areas encompassing AOC 43G and AOC 43J have been retained by the Army for use as part of the Army Reserve Enclave and have been designated as part of the Devens Reserve Forces Training Area (RFTA).

AOC 43G is located on Queenstown Road in the central portion of the former Main Post of Fort Devens. It consists of the inactive Army Air Force Exchange Service (AAFES) gas station and historic gas station. The original Study Area (SA) (SA 43G [Area 1]) was the historic gas station G which was used as a motor vehicle pool to support military operations during World War II. All identified underground storage tanks at AAFES gasoline station have been removed. However, petroleum contamination was detected in soil and ground water at the site from leaking gasoline USTs, a waste oil storage tank, and a sand and gas trap. Due to the contamination present at this site, a Remedial Investigation (RI) was performed at AOC 43G. In 1996, the Army completed a Feasibility Study (FS) at the site to analyze potential remedial alternatives to address groundwater contamination. A ROD was signed in October 1996 that documents intrinsic remediation as the final selected cleanup remedy at the site.

AOC 43J is situated on an access road that connects Patton Road and Queenstown Road in the central portion of the former Main Post of Fort Devens. The area around AOC 43J was used as a vehicle storage yard and maintenance facility (Buildings T-2446 and T-2479) for a Special Forces Unit of the US Army. Prior to the building of the Special Forces Unit vehicle maintenance facility, this area was historically used as a gas station/motor pool during the 1940s and 1950s. All identified USTs have been removed. However, petroleum contamination was detected in soil and ground water at the site from leaking USTs. Due to the contamination present at both sites, an RI was performed at AOC 43G and AOC 43J.

In 1996, the Army completed a FS at the sites to analyze potential remedial alternatives to address groundwater contamination. A ROD was signed for both sites in October 1996 that documents intrinsic remediation as the final selected cleanup remedy at the site.

STATUS

REGULATORY DRIVER: CERCLA

PARCEL NAME: AOC G - Retained, AOC J – Parcel C (early transfer parcel exchange)

RRSE: Medium

CONTAMINANTS OF CONCERN: VOCs, SVOCs ,Metals

MEDIA OF CONCERN: Groundwater

Phases	Start	End
PA	199108	199206
SI	199111	199410
RI/FS	199401	199411
RD	199412	199707
RA(C)	199804	199809
RA(O)	199809	202309
LTM	202309	202509

HISTORIC GAS STATIONS (AOC 43G & J)

CLEANUP STRATEGY

The cleanup strategy for AOCs 43G and 43J involves continuing the RAO phase activities that involves groundwater monitoring as part of the MNA remedy. This monitoring is projected to continue until the year 2023 or until such time that the groundwater cleanup goals are achieved for the sites. Following the completion of the RAO phase, it is anticipated that LTM phase monitoring will be necessary for a two year period in order to confirm that the MNA remedy has been effective.

FTDV-080
PASTED SS – ELEMENTARY SCHOOL (AOC 69W)

SITE DESCRIPTION

Fort Devens ceased to be an active Army installation on March 31, 1996, as a result of the Base Realignment and Closure Act (BRAC). AOC 69W is located at the northeast corner of MacArthur Avenue and Antietam Street. The site was formerly known as the Fort Devens Elementary School (Building 215) and included the associated parking lot and adjacent lawn extending approximately 300 feet northwest to Willow Brook. The school was closed for a period of time and was reopened in September 2000 as the Parker Charter School. Contamination at the site is attributed to heating oil, which leaked from underground piping in two separate incidents; once in 1972 and again in 1978. It is estimated that approximately 7,000 to 8,000 gallons of fuel oil were released into the soil during each incident. In 1998, a Removal Action was performed and approximately 3,500 cubic yards of petroleum-contaminated soil were excavated and disposed offsite. In addition, the 10,000- gallon fuel oil underground storage tank (UST) and the oil recovery system's 250-gallon vault and associated piping were removed. No additional remedial activities have occurred at this site since 1998.

STATUS

REGULATORY DRIVER: CERCLA

PARCEL NAME: A15, AOC 69W

RRSE: High

CONTAMINANTS OF CONCERN:
SVOCs

MEDIA OF CONCERN:
Groundwater

Phases	Start	End
PA	199101	199206
SI	199302	199506
RD	199412	199509
RA(C)	199712	199807
LTM	199807	201410

RC DATE: 199807

The contaminants of concern (COC) in ground water include volatile petroleum hydrocarbons (VPH), extractable petroleum hydrocarbons (EPH), arsenic and manganese.

Note: The initial investigation was done under FTDV-069

CLEANUP STRATEGY

It is currently projected that the LTM phase groundwater monitoring will continue at AOC 69W until 2010 or until such time that the effectiveness of the remedy has been demonstrated.

BRAC No Further Action Sites Summary

AEDB-R #	Site Title	Documentation/Reason for NFA	NFA Date
FTDV-001	Hospital Incinerator (SA 1)	All Required Cleanup Completed	199402
FTDV-002	Vet Clinic Incinerator (SA 2)	Study Completed, No Cleanup Required	199206
FTDV-003	Intelligence School Incinerator (SA 3)	Study Completed, No Cleanup Required	199206
FTDV-004	Sanitary Landfill Incinerator	All Required Cleanup Completed	200403
FTDV-006	Household Dump (SA 6)	Study Completed, No Cleanup Required	199410
FTDV-007	Household Dump (SA 7)	Study Completed, No Cleanup Required	199206
FTDV-008	Household Dump (SA 8)	Study Completed, No Cleanup Required	199206
FTDV-0085	COMP – BRAC USTs	Other	200009
FTDV-0086	SHL Groundwater	Other	200403
FTDV-009	Cnst Debris Landfill (SA 9)	All Required Cleanup Completed	200309
FTDV-010	CNST Debris Landfill (SA 10)	Study Completed, No Cleanup Required	199403
FTDV-011	CNST Debris Landfill (AOC 11)	All Required Cleanup Completed	200309
FTDV-012	CNST Debris Landfill (SA 12)	All Required Cleanup Completed	200309
FTDV-013	Open CNST Debris Landfill (SA 13)	All Required Cleanup Completed	200309
FTDV-014	Abandoned Quarry (SA 14)	Study Completed, No Cleanup Required	199410
FTDV-015	Old Disposal Pit (SA 15)	All Required Cleanup Completed	199504
FTDV-016	Shopette Landfill (SA 16)	All Required Cleanup Completed	199403
FTDV-017	Little Mirror Lake (SA 17)	All Required Cleanup Completed	199512
FTDV-018	Sanitary Landfill – Asbestos Cell (AOC 18)	Other	199809
FTDV-019	Imhoff Tanks (SA 19)	Study Completed, No Cleanup Required	199307
FTDV-020	Sand Infiltration Beds (SA 20)	Study Completed, No Cleanup Required	199307
FTDV-021	Sludge Drying	Study Completed, No Cleanup Required	199511

AEDB-R #	Site Title	Documentation/Reason for NFA	NFA Date
	Beds (SA 21)		
FTDV-022	Hax Waste Storage (SA 22)	Study Completed, No Cleanup Required	199206
FTDV-023	Paper Recycling Center (SA 23)	Study Completed, No Cleanup Required	199206
FTDV-024	Waste Expl. Storage Bunker (SA 24)	Study Completed, No Cleanup Required	199303
FTDV-028	Waste Exp Det Range (SA 28)	Study Completed, No Cleanup Required	199307
FTDV-029	Transformer Storage Area (SA 29)	Study Completed, No Cleanup Required	199403
FTDV-030	MAAF Drum St. Area (SA 30)	Study Completed, No Cleanup Required	199606
FTDV-031	Fire Training Pit (SA 31)	Study Completed, No Cleanup Required	199501
FTDV-033	Entomology Shops (SA 33)	All Required Cleanup Completed	199410
FTDV-034	Entomology Shops (SA 34)	All Required Cleanup Completed	199410
FTDV-035	Entomology Shops (SA 35)	Study Completed, No Cleanup Required	199412
FTDV-036	Entomology Shops (SA 36)	All Required Cleanup Completed	199410
FTDV-037	Entomology Shops (SA 37)	All Required Cleanup Completed	199411
FTDV-038	Battery Repair Area (SA 38)	All Required Cleanup Completed	199506
FTDV-039	Former Sylvania Bldg Site (SA 39)	All Required Cleanup Completed	199601
FTDV-042	Popping Furnace (SA 42)	All Required Cleanup Completed	199511
FTDV-044	Cannibilization Yard (AOC 44)	All Required Cleanup Completed	199605
FTDV-045	Lake George St. Wash Rack (SA 45)	All Required Cleanup Completed	199406
FTDV-046	Training Area 6D (SA 46)	Study Completed, No Cleanup Required	199206
FTDV-047	MAAF LUST Site (Bldg 3816) (SA 47)	Study Completed, No Cleanup Required	199307
FTDV-048	Building 202 – UST (SA 48)	All Required Cleanup Completed	199305
FTDV-049	Building 3602 –	All Required Cleanup Completed	199511

AEDB-R #	Site Title	Documentation/Reason for NFA	NFA Date
	LUST Site (SA 49)		
FTDV-051	O'Neal Bldg Spill Site	Study Completed, No Cleanup Required	199512
FTDV-052	TDA Class III Yard (AOC 52)	All Required Cleanup Completed	199605
FTDV-053	South Post Spill Site (SA 530	Study Completed, No Cleanup Required	199206
FTDV-054	Building 2680 (SA 54)	Study Completed, No Cleanup Required	199510
FTDV-055	Shirley Trailer Part USTs (SA 55)	All Required Cleanup Completed	199305
FTDV-056	Building 2417 UST Site (SA 56)	All Required Cleanup Completed	199406
FTDV-058	Bridge 2648/2650 LUST Site (SA 58)	All Required Cleanup Completed	199511
FTDV-059	Bridge 526 (SA 59)	Study Completed, No Cleanup Required	199403
FTDV-060	Training Areas and Ranges (AREE 60)	Study Completed, No Cleanup Required	199212
FTDV-061	Waste Accumulation Areas (AREE 61)	Other	199909
FTDV-062	COMP – USTs Existing (AREE 62)	All Required Cleanup Completed	199206
FTDV-063	COMP – USTs Previously Removed (AREE 63)	All Required Cleanup Completed	199806
FTDV-064	ASTs (AREE 64)	Study Completed, No Cleanup Required	199206
FTDV-065	COMP - Asbestos (AREE 65)	Study Completed, No Cleanup Required	199505
FTDV-066	Transformers (AREE 66)	All Required Cleanup Completed	199505
FTDV-067	COMP – Radon (AREE 67)	Study Completed, No Cleanup Required	199505
FTDV-068	COMP – Lead Paint (AREE 68)	All Required Cleanup Completed	199506
FTDV-070	Storm Sewers (AREE 70)	Study Completed, No Cleanup Required	199410
FTDV-072	Plow Shop and Grove Ponds (AOC 72)	Other	200403
FTDV-073	Lower Cold Spring Brook (SA 73)	Study Completed, No Cleanup Required	199603
FTDV-075	Hist Gas (SA 43B, C, E, F, K. L, M, N,	Study Completed, No Cleanup Required	199501

AEDB-R #	Site Title	Documentation/Reason for NFA	NFA Date
	O, P, Q, R, S		
FTDV-076	Historic Gas Stations (SA 43, D, H & I)	All Required Cleanup Completed	199609
FTDV-079	Previously RMVD UST Bldg 2517 (AOC 63AX)	Study Completed, No Cleanup Required	199709
FTDV-081	MWAA, Bldg 202 (AOC 61Z)	Other	199906
FTDV-082	Bldg 1666 UST Spill (AOC 63BD)	All Required Cleanup Completed	199612
FTDV-083	UPPLS (ARE 61A, B, Z, AB, AU: 69AD, AE)	All Required Cleanup Completed	200203
FTDV-084	Bldg 2527 AB and UST Site (AREE 63BQ)	All Required Cleanup Completed	199512

Initiation of IRP: 1982

Past Phase Completion Milestones:

1990 - 1996
AOC 43G, Soil and UST Removal, REM (June 1997)

1994 & 2002
AOC 57, Soil Removal, IRA (Sep 2002) and RA (Feb 1996)

1994
Bldg 3657, Soil Removal, Closure Report (Jun 1996)
Bldg 3606, Soil Removal, Closure Report (Aug 1995)

1995
AOC 43 H & I, Soil Removal, Closure Report (May 1996)

1998
AOC 69W, Soil/GW Removal, REM (June 1998)
AOC 32, Soil Removal, REM (Oct 1999)

1999
SA 71, Soil Removal, Closure Report (Aug 2000)

2005 – 2006
Grant Housing Area, Soil Removal, REM (March 2006)
Locut Housing Area, Soil Removal, REM (May 2006)

Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates:
Unknown

Projected Construction Completion Date of IRP: All remedies are in-place

Projected Date for Removal from NPL: 2046

Schedule for Next Five-Year Review: 2010

Estimated Completion Date of IRP (including LTM phase): 2046

Devens Reserve Training Facility BRAC Schedule

(Based on current funding constraints)

AEDB-R#	PHASE	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+
FTDV-005	RA(O)									203509
	LTM									204510
FTDV-025	LTM									203709
FTDV-026	LTM									203709
FTDV-027	LTM									203709
FTDV-032	LTM									202909
FTDV-040	LTM									203709
FTDV-041	LTM									203709
FTDV-043	RA(O)									201709
	LTM									202009
FTDV-050	RA(O)									202609
	LTM									203010
FTDV-057	LTM									
FTDV-069	LTM									
FTDV-077	RA(O)									202309
	LTM									202509
FTDV-080	LTM									

BRAC Costs

Prior Years Funds

Total Funding up to FY05: $142,722K

Current Year (FY06) Requirements

Site Information	Expenditures	FY Total
		$ 6,600K

Total Future Requirements: **$41,193K**

Total IR Program Cost *(from inception to completion of the IRP):* **$ 190,515K**

Community Involvement

A Technical Review Committee was established in 1991.

In 1994, the TRC was incorporated into the Restoration Advisory Board (RAB). RAB membership consists of local residents, local environmental groups, local government officials, state representatives, state regulators and the USEPA.